Amendments to the Specification:

Please add the following new title at page 1, line 1:

Enhancing Structure Diagram Generation Through Use of Symmetry

Please add the following new paragraphs at page 4, line 11, immediately before the paragraph that reads, "The coordinates may be derived with or without preexisting coordinates":

Current methods include a less refined implementation of SDG. For example, earlier versions of CambridgeSoft Corporation's ChemDraw® program employed a feature that allowed users to regularize bond lengths and angles, and lay out ring systems. ChemDraw®, however, did not consult symmetry when creating two-dimensional organic structures, was unable to satisfactorily fabricate bridges, and lacked the ability to inter-position molecules. Although other methods of chemical structure generation have employed different methodologies, they suffered the same shortcomings, and there was no consideration in these methods for symmetry. Thus, there have been problems associated in the art with the creation of two-dimensional organic structures.

The present invention provides new methods of SDG. The new methods enhance SDG by improving the layout of chemical structure diagrams. The enhanced SDG provides users the ability to more quickly recognize chemical molecules. The enhanced SDG also allows users to more quickly recognize important features of chemical molecules, such as symmetry. As a result of the methods of the invention, the enhanced SDG methods are also useful for purposes of publication. In addition, the methods provide users the ability to improve chemical structure diagrams quickly and efficiently, thus avoiding tedious manipulation.

Please replace the paragraph beginning at page 4, line 1, which starts, "The coordinates may be derived with or without preexisting coordinates" with the following amended paragraph:

In SDG, the two-dimensional [[The]] coordinates may be derived with or without preexisting coordinates. Cases without preexisting coordinates ("de novo" cases) are common and include chemical name translation, isomer enumeration, translation from a linear notation such as SMILES, nickname/superatom expansion, and automated structure elucidation.